

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Continuation Application of: :
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WOLFE et al. : Office of Initial Patent Examination
: :
Serial Number: 09/362,711 :
: :
Filed: This application filed: January 24, 2002 :
: :
For: POLYMERS :

PRELIMINARY AMENDMENT

ASSISTANT COMMISSIONER FOR PATENTS
Washington, D.C. 20231

Sir:

Prior to an examination on the merits, please amend the above identified application as follows:

IN THE SPECIFICATION:

Please insert the following as the first sentence.

This application is a continuation application of pending U.S. application serial number 09/362,711, filed July 29, 1999, (of which the entire disclosure of the pending, prior application is hereby incorporated by reference) which is continuation of international application PCT/GB98/00270, filed January 29, 1998, which claims benefit of the filing date under 35 U.S.C. 119(e) of U.S. provisional application 60/057,074, filed August 27, 1997.

IN THE CLAIMS:

Please replace claims 4, 8-9, 11-12, 15, 19, 20, 22-23, 25-27 and 29-31 with the following amended claims.

4(Amended). A compound as claimed in claim 1, wherein said dendrimeric polymer backbone comprises from 3 to 200 amino acid residues extending radially from a central core display.

8(Amended). A compound as claimed in claim 1, wherein said polymer backbone has a molecular weight of from 300 to 20,000 daltons.

9(Amended). A compound as claimed in claim 2, wherein said polymer backbone comprises a polymer of a single species or at least two different species of amino acids, or a block copolymer.

11(Amended). A compound as claimed in claim 1 comprising from 3 to 200 reporter moieties.

12(Amended). A compound as claimed in claim 1, wherein each reporter moiety is linked to said polymer backbone via a biodegradable linking group.

15(Amended). A compound as claimed in claim 1, wherein at least one reporter moiety comprises a diagnostic or therapeutic agent.

19(Amended). A compound as claimed in claim 16, wherein said chelating agent is selected from ethylenediamine tetraacetic acid (EDTA), diethylenediamine pentaacetic acid (DTPA), 1,4,7,10-tetraazacyclododecanetetraacetic acid (DOTA), 1,4,7,10-tetraazacyclododecane-1,4,7-triacetic acid (DO3A), 1-oxa-4,7,10-triazacyclononanetriacetic acid (NOTA) and 1,4,8,11-tetraazacyclotetradecanetetraacetic acid (TETA).

20(Amended). A compound as claimed in claim 16, wherein said chelating agent is selected from 4' - (3-amino-4-methoxy-phenyl)-6,6"-bis(N', N'-dicarboxymethyl-N-

methyldiazino)-2,2'6',2"-terpyridine (THT) and 4'-(d-amino-4-methoxy-phenyl)-6,6"-bis[N,N-di(carboxymethyl) aminomethyl]-2,2':6',2"-terpyridine (TMT).

22(Amended). A compound as claimed in claim 1 linked to a targeting agent capable of traveling to or binding specifically to targeted cells, tissues, organs or other locations in a mammalian body.

23(Amended). A compound as claimed in claim 7, wherein said targeting agent comprises *E. coli* heat stable enterotoxin Sta or an analogue thereof.

25(Amended). A dendrimeric polymer as claimed in claim 24, wherein said core moiety is as defined.

26(Amended). A process for preparing a compound as claimed in claim 1, said process comprising conjugating at least one reporter moiety to a radially asymmetric dendrimeric polymer backbone comprising a plurality of amino acid residues.

27(Amended). A process for preparing a compound as claimed in claim 1, said process comprising the step of deprotecting a partially or fully protected derivative thereof.

29(Amended). A pharmaceutical composition comprising a compound as claimed in claim 1, together with at least one pharmaceutical carrier or excipient.

30(Amended). Use of a compound as claimed in claim 1 in the manufacture of an image enhancing contrast medium or a therapeutic composition.

31(Amended). A method of generating an image of the human or non-human animal body, said method comprising the step of administering to said body a

compound as claimed in claim 1 and thereafter generating an image of at least a part of said body.

REMARKS

Applicants have amended the specification to cross reference the parent application.

Applicants have also amended the claims in order to reduce the filing fee by deleting the multiple dependencies. Applicants retain the right to reintroduce any subject matter canceled by the present Amendment at any time during the prosecution of this application or any continuation or divisional thereof in the United States.

The present application is a continuation application and the prior art cited in the parent applications should be taken into consideration in the present application. In accordance with MPEP §2001.06(b) no copies of the prior art in the parent applications are submitted herewith. The reference cited forms from the parent applications are submitted herewith for the convenience of the Examiner. In accordance with MPEP §609, a Form 1449 listing these references is also submitted herewith. Confirmation that the prior art cited in the parent applications has been considered in the next Official Action is most respectfully requested.

In view of the above amendments to the claims an early and favorable action on the merits is now in order and is most respectfully requested.

Respectfully submitted,
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REF/kdd
PA01.wpd

January 23, 2002

Marked-Up Version Showing Changes Made

IN THE CLAIMS:

Please replace claims 4, 8-9, 11-12, 15, 19, 20, 22-23, 25-27 and 29-31 with the following amended claims.

4(Amended). A compound as claimed in [any one of claims 1 to 3] claim 1, wherein said dendrimeric polymer backbone comprises from 3 to 200 amino acid residues extending radially from a central core display.

8(Amended). A compound as claimed in [any preceding claim] claim 1, wherein said polymer backbone has a molecular weight of from 300 to 20,000 daltons.

9(Amended). A compound as claimed in [any one of claims 2 to 8] claim 2, wherein said polymer backbone comprises a polymer of a single species or at least two different species of amino acids, or a block copolymer.

11(Amended). A compound as claimed in [any preceding claim] claim 1 comprising from 3 to 200 reporter moieties.

12(Amended). A compound as claimed in [any preceding claim] claim 1, wherein each reporter moiety is linked to said polymer backbone via a biodegradable linking group.

15(Amended). A compound as claimed in [any preceding claim] claim 1, wherein at least one reporter moiety comprises a diagnostic or therapeutic agent.

19(Amended). A compound as claimed in claim 16 [or claim 17], wherein said chelating agent is selected from ethylenediamine tetraacetic acid (EDTA),

diethylenediamine pentaacetic acid (DTPA), 1,4,7,10-tetraazacyclododecanetetraacetic acid (DOTA), 1,4,7,10-tetraazacyclododecane-1,4,7-triacetic acid (DO3A), 1-oxa-4,7,10-triazacyclononanetriacetic acid (NOTA) and 1,4,8,11-tetraazacyclotetradecanetetraacetic acid (TETA).

20(Amended). A compound as claimed in claim 16 [or claim 17], wherein said chelating agent is selected from 4' - (3-amino-4-methoxy-phenyl)-6,6"-bis(N', N'-dicarboxymethyl-N-methylhydrazino)-2,2'"6', 2"-terpyridine (THT) and 4'-(d-amino-4-methoxy-phenyl)-6,6"-bis[N,N-di(carboxymethyl) aminomethyl]-2,2':6',2"-terpyridine (TMT).

22(Amended). A compound as claimed in [any preceding claim] claim 1 linked to a targeting agent capable of traveling to or binding specifically to targeted cells, tissues, organs or other locations in a mammalian body.

23(Amended). A compound as claimed in claim 7 [or claim 22], wherein said targeting agent comprises *E. coli* heat stable enterotoxin Sta or an analogue thereof.

25(Amended). A dendrimeric polymer as claimed in claim 24, wherein said core moiety is as defined [in any one of claims 5 to 7].

26(Amended). A process for preparing a compound as claimed in [any one of claims 1 to 23] claim 1, said process comprising conjugating at least one reporter moiety to a radially asymmetric dendrimeric polymer backbone comprising a plurality of amino acid residues.

27(Amended). A process for preparing a compound as claimed in [any one of claims 1 to 23] claim 1, said process comprising the step of deprotecting a partially or fully protected derivative thereof.

29(Amended). A pharmaceutical composition comprising a compound as claimed in [any one of claims 1 to 23] claim 1, together with at least one pharmaceutical carrier or excipient.

30(Amended). Use of a compound as claimed in [any one of claims 1 to 23] claim 1 in the manufacture of an image enhancing contrast medium or a therapeutic composition.

31(Amended). A method of generating an image of the human or non-human animal body, said method comprising the step of administering to said body a compound as claimed in [any one of claims 1 to 23] claim 1 and thereafter generating an image of at least a part of said body.